

Having thus described the preferred embodiments, the invention is now claimed to be:

1. A golf ball exhibiting stable spin characteristics, said golf ball  
5 comprising:

a generally spherical core, said core defining a recessed region extending about an outer periphery of said core along a common plane;

a mantle layer disposed on and uniformly encapsulating said core, said mantle layer extending into said recessed region; and

10 a cover disposed on said mantle layer, said cover having an outer surface and defining a plurality of dimples along said outer surface;

wherein said recessed region has a depth of from about 0.050 inches to about 0.300 inches; and,

wherein the specific gravity of the mantle is greater than the specific gravity of  
15 the core.

2. The golf ball of claim 1, wherein said cover includes an inner cover disposed on said mantle and an outer cover disposed on said inner cover, said outer cover providing said outer surface.

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3. The golf ball of claim 1, wherein the recessed region is a continuous channel extending about the circumference of the core.

4. The golf ball of claim 1, wherein the specific gravity of said mantle layer  
25 is greater than 1.05.

5. The golf ball of claim 1, wherein the specific gravity of said mantle layer is greater than 1.15.

30 6. The golf ball of claim 1, wherein the specific gravity of said mantle layer is greater than 1.20.

7. A golf ball exhibiting limited side-spin characteristics, said golf ball comprising:

a generally spherical core, said core defining a recessed channel extending about an outer periphery of said core along a common plane;

5 a mantle layer disposed on and uniformly encapsulating said core, said mantle layer extending into said recessed channel; and

a cover disposed on said mantle layer, said cover having an outer surface and defining a plurality of dimples along said outer surface;

10 wherein said recessed channel has a width of from about 0.100 inches to about 0.500 inches; and wherein the specific gravity of the mantle is greater than the specific gravity of the core to produce a continuous band of high density material positioned along the gyroscopic center plane of the golf ball.

8. The golf ball of claim 7, wherein said cover includes an inner cover  
15 disposed on said mantle and an outer cover providing said outer surface.

9. The golf ball of claim 7, wherein the specific gravity of said mantle layer is 0.05 or more, greater than the specific gravity of said core.

20 10. The golf ball of claim 7, wherein the specific gravity of said mantle layer is 0.10 or more, greater than the specific gravity of said core.

11. The golf ball of claim 7, wherein the specific gravity of said mantle layer is 0.15 or more, greater than the specific gravity of the core.

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12. The golf ball of claim 7, wherein the mantle layer comprises a density increasing filler.

13. The golf ball of claim 7, wherein the mantle layer comprises a  
30 polymeric material and particulate weighting material dispersed therein.

14. A golf ball having a controlled weight distribution about a designated spin axis, said golf ball comprising:

a generally spherical core, said core defining a continuous recessed channel extending about an outer periphery and along the circumference of said core along a common plane and centered about the spin axis of the ball, said core having a density of 1.15 or less;

a mantle layer disposed on and generally encapsulating said core, said mantle layer extending into said recessed channel, said mantle having a density of greater than 1.15; and

a cover disposed on said mantle layer, said cover having an outer surface and defining a plurality of dimples along said outer surface.

15. The golf ball of claim 14, wherein said recessed channel has a depth of from about 0.050 inches to about 0.300 inches and a width of from about 0.100 inches to about 0.500 inches.

16. The golf ball of claim 14, wherein said cover includes an inner cover disposed on said mantle and an outer cover providing said outer surface.

17. The golf ball of claim 14, wherein said core component includes a central core element disposed at the center of said core component.

18. The golf ball of claim 14, wherein said core has a specific gravity of 1.10 or less and said mantle has a specific gravity of greater than 1.20.

19. A method of forming a golf ball having limited side-spin characteristics, said method comprising:

providing a material suitable for forming a core of said golf ball;

forming a core from said material such that said core defines a recessed channel extending about an outer periphery and along the circumference of the core;

forming a mantle layer on said core such that a portion of said mantle layer is disposed within said channel defined in said core, wherein said mantle layer has a higher specific gravity than the core; and

forming a cover layer on said mantle layer, thereby producing said golf ball.

20. The method of claim 19, wherein said step of forming a cover layer includes forming an inner cover layer on said mantle layer and forming an outer  
5 cover layer on said inner cover layer.